

Date: Fri, 21 May 93 17:37:19 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #617
To: Info-Hams

Info-Hams Digest Fri, 21 May 93 Volume 93 : Issue 617

Today's Topics:

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 2 Meters and Airlines
 2mtrs and airlines
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 REAL Mods for the HTX-202
Remote control features of the Kenwood 742A
 Repeater Questions
SMITH12.ZIP - Hams: Interactive Smith chart calculator

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 20 May 1993 17:49 EST
From: dog.ee.lbl.gov!overload.lbl.gov!agate!usenet.ins.cwru.edu!lerc.nasa.gov!
lims01.lerc.nasa.gov!lwwald@network.UCSD.EDU
Subject: 2m/440 traneivers in Ford Rangers
To: info-hams@ucsd.edu

I was wondering if folks on the net who have the above vehicles have had
any problems with mobile FM operation. I am planning to put a 2m/440 radio

in the truck this weekend and would like to hear pertinent experiences.

Thanks..

Larry, KE8GW

Date: 21 May 93 04:02:13 GMT
From: usc!wupost!bigboy.sbc.com!news.mtholyoke.edu!eddie.mit.edu!
magnesium.club.cc.cmu.edu!pitt.edu!jjast7@network.UCSD.EDU
Subject: 2 Meters and Airlines
To: info-hams@ucsd.edu

Warren Whitby (wwhitby@eng.gtefsd.com) wrote:

: Look in a cellular phone user's manual and it says the same thing
: about using a cell phone on an airline. Is it true or is it the fact
: that you might go into *roam* and be picked up by many cellular towers
: at the same time?

Keep in mind that this is a specialised case, where it is prohibited
by BOTH the FCC and the FAA. A followup post cites the FAA reg, the
FCC's problem with it is as you mentioned, one little 3-watt a way up
in the air will hit cell sites all across the country, all at once.

Not very conducive to anyones communicating. There is a new,
separate, special system for aviation cell phone use coming on line, I
have no references.

--

Peace, JA

--

But Officer, my car doesn't GO that fast! alles@med.pitt.edu

Date: 21 May 93 12:34:52 GMT
From: news-mail-gateway@ucsd.edu
Subject: 2mtrs and airlines
To: info-hams@ucsd.edu

>>Hi-

>> I am getting ready to take a rather long trip by air and I was wondering i
>>f anybody knew what the regulations were for operating a 2 meter rig aboard an
>>commercial airplane.

I'm pretty sure this is addressed in the FAQ files, but understandable that

it crops up here on a regular basis. Check the FAQ for the actual rules.
(basic answer is NO!)

Julian Macassey writes

> I have used a walkie-talkie from a plane many times. The plane
>has never crashed. I used to drink with an SM commercial pilot who
>used his walkie from the flight deck all the time.

AND

>

> The doom mongers will tell you that using a radio from a plane
>will cause it to come down in flames.

Forgetting the rules for a minute, the issue isn't that the airplanes are likely to come down in flames (although getting RF into the control system or the ARINC buss of a modern fly by wire airliner might be interesting...), it's that you are flirting with the possibility of screwing up the navigation at a critical point such as an ILS approach and ending up in a cow pasture instead on that nice wet tarmac.

The navigation and instrument landing receivers operate in the 108-118 mhz range, not so far from 2 meters. The antennas are stuck in various places around the aircraft, perhaps not so far from your seat. Imagine a snowy dark night, your jetliner is letting down into final approach, the guys up forward are busy glued to the needles cause they can't see anything else, and you whip out your HT to call your wife to meet you at the airport and save yourself 10 minutes of waiting. Maybe those needles keep wiggling as they are supposed to, or maybe they don't - some receivers center the needles when they lose the signal - giving the "you're on perfect track" signal, others slam them against the side so the pilot knows something is awry. In either case, it makes it impossible to use them. And now the pilot is stuck with not only bad weather, but a navigation system he doesn't trust. You're down at 300 feet AGL, 1/2 mile off the end of the runway, bouncing around, and suddenly the pilot is trying to debug his ILS receiver. People have flown into the ground getting distracted with far less important things.

AS far as getting the captains blessing, or the crew using it. If you are crew, it's pretty easy to key and unkey the radio and watch for indications that things are changing. With someone in the back keying up, you have no idea why things are 'funny' all of a sudden. Or if they are. But I'll bet even your pilot friend only operated during the mid cruise portion where the nav receiver is not as critical. During landing is the most critical phase - if you are going to do it (DON'T), don't do it when the aircraft is letting down to land. Takeoffs in bad weather are equally critical, got to use the nav aids to know where to turn to keep from hitting the big hill, or to get back to the runway if something goes bang. At cruise, you might wander off course, but there's lots' fewer things to hit (although the ones

you do hit are moving as fast as you are).

The captain is the final authority on the craft, but in corporate America, that's pretty diluted - most if not all airlines prohibit the captain from blessing the use of radios on board. How can he tell if it will mess things up? He's probably not a radio expert - and to really be sure you would have to do extensive tests with all the radios involved. And the FAA regs prohibit use of non-aviation radios during IFR operations period - and all but the smallest puddle jumpers file IFR 99 percent of the time. So transmitting on airlines is out. For good reasons, not just overzealous rulemakers.

> Then of course they will tell you that planes cost so much because they have to make everything >RFI proof.

Yeah, they do - it's called EMC - ElectroMagnetic Compatibility. And they have to test all the hundreds of electronic subsystems to be sure they don't interact with each other. Now you've walked on board carrying a potent additional one - a 5 watt HT. To be sure everything works, they'd have to check all those systems while you are transmitting and receiving, across your radio's range etc. And once approving your HT (hah!) when someone with a different model comes on board, you have the same problem again. Which is why captains of commercial aircraft can't in practical terms tell you it's ok.

Even a receiver can be a problem. The local oscillator of your HT could be sitting on the VOR or ILS frequency. Even passing part 15 emissions doesn't guarantee you won't mess up a sensitive receiver whose antenna is sitting close by. Look at all the people who can't copy 2 meters on their HT's with their part 15 approved computers on in the same room. I had been listening to ground traffic with HT and switched it off but left the plug to my headset on it when the Stewardess came by a few flights back. She stopped mid aisle, turned around, and chewed me out for running a radio on board. (rules prohibit it) I had to break it down in front of her. Did it with a smile. :-). Now I demo it at the baggage check (don't send it through the x-ray, I prefer not to have static ram or NVRAM corrupted by a soft x-ray hit thank you) then take the battery off it and stow it in my carry on so it can't become switched on accidentally.

However in light aircraft, other things are possible. I've run packet from the back of our Cessna on a belly mount antenna in VFR conditions to test the idea of airborne digi's (back about 6 years ago when the packet spectrum wasn't so full) and have run my HT from light singles to heavy twins when I was PIC or crew (VFR only). Helps a lot to have an outside antenna if the windows are small. And repeaters are pretty unusable because you key and hear the tails from 3-5 at a time depending on altitude. And headsets are almost a must because of the noise - you'll need to turn down the mic gain to keep the engine noise from overcoming your voice on

transmit. I used an ICOM HS10 with PTT box and the gain down just off the peg and it worked very well.

I think the airlines should patch one of the audio channels to the seat headsets into the comm buss. That would satisfy most of us who ARE curious to listen. But I don't think it will ever happen.

Oh well, my .02 in the perennial discussion. Just couldn't stay out this time. :-)

de WB2EMS

F. Kevin Feeney
Network Video Engineer
172 Caldwell Hall
Cornell University
Ithaca, NY 14853-2602
Phone - (607) 255-5186
FAX - (607) 255-5771
EMAIL - fkf1@cornell.edu

Date: 21 May 93 23:04:17 GMT
From: news-mail-gateway@ucsd.edu
Subject: 3rd Party Vendors of HT batteries
To: info-hams@ucsd.edu

Tom Bodoh <bodoh@dgg.cr.usgs.gov> asks:

> As a followup question, are NiMH batteries available for HT's yet? I've
> heard that they're supposed to eventually replace Nicads due to longer
> life. Anyone know when or where these might become available or viable?

They are now available in AA and C cell sizes from:

Harding Energy Systems
826 Washington Avenue
Grand Haven, MI 49417
phone (616) 798-7033

AA cells (1.2V, 1100 mAH) are \$6 each with solder tabs, or \$5 each without.
(Compare about \$2.25 each for Rat Shack's purple-label NiCd cells...)
Sorry, I don't (yet) have any price info on C cells.

According to specs, NiMH cells have no memory effect, and can be charged at anything up to 300 mA. Nominal charge current is 110 mA.

Harding sells only to individuals--no dealers so far--and takes either cash or COD's. (No credit cards. :-()

DISCLAIMER --- I am not an employee of Harding, just a happy customer. ;-)

I am presently awaiting arrival of a set of NiMH AA's, to be used to rebuild a battery pack for the Bearcat BC200XLT scanner. I'll post details to r.r.a.misc and alt.radio.scanner when the mod is finished.

Hope this helps!

```
=====
Richard Hosker      : ttttttttt Tennessee Technological University
rph0470@tntech.edu  : t u t u Cookeville, TN
PO Box 6083 TTU     : t u t u
Cookeville, TN 38505 : t uuuuuu "Mama, don't take my Kodachrome away!"
=====
#include <disclaimer.h>
```

Date: Thu, 20 May 1993 22:37:17 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!wupost!
sdd.hp.com!col.hp.com!news.dtc.hp.com!hpscit.sc.hp.com!icon.rose.hp.com!
greg@network.UCSD.EDU
Subject: Alinco DJ580 Gets HOT!!!
To: info-hams@ucsd.edu

Dave, it's a design problem. See, they've got these little holes over the microphone that let in a lot of hot air, but there are no holes on the back side to let it out. Some comes out of the antenna jack on top, but most builds up inside and heats up the belt clip. Leaving the battery off is the best way to keep it cool, as there are large spaces around the battery rails for it to escape out the bottom.

: -)

Mine does the same thing. Best thing is to drop to the smaller battery and get a better antenna. Diamond's RH77B works fairly well.

Greg KD6KGW

Date: 21 May 93 02:42:49 GMT
From: ogicse!uwm.edu!zaphod.mps.ohio-state.edu!menudo.uh.edu!ccsvax.sfasu.edu!
f_speerjr@network.UCSD.EDU

Subject: A Yagi at 11,000 feet
To: info-hams@ucsd.edu

> My question for you all to ponder and respond to: Does an antenna located
> on an 11,000-foot-thick ice shelf "see" the ice surface to an appreciable
> extent, or does it work like a Yagi (for example) in free space? If the latter
> is true, it seems Mike could hope to build a many-element wire Yagi for
> optimized communications with us here in the west, and then maybe use a simpler
> antenna like a vertical or dipole for casual DX with the rest of the world.
>
> He leaves about June 9. I would be grateful to receive informed opinions in
> the next few days so we can make our plans on that basis.
>
> Thanks in advance.
>
> -Arthur W. Johnson, AA7UT
> Fleischmann Planetarium
> University of Nevada, Reno
> Reno, NV 89557
> phone (702) 784-4812
> fax (702) 784-4822

That's bound to depend on the conductivity of the ice. If it's very low, your antenna is in free space; if it's high, it's on the ground. Do you know the conductivity?

Cheers!
Jim K5YUT

Date: Thu, 20 May 1993 21:56:21 GMT
From: elroy.jpl.nasa.gov!swrinde!gatech!news.byu.edu!ns.novell.com!
jmessaging.NSD.Provo.Novell.COM!JMESSING@ames.arpa
Subject: DJ-580t & FT-530 opinions
To: info-hams@ucsd.edu

Sorry to take up bandwidth with this request.
But I am thinking about buying one of these
two radios. Either the DJ-580t or the
FT-530. They both seem pretty close in
features. If there is anyone out there that has
any thoughts on the advantages of one over the
other, I would like to hear them.

Thanks in advance for your help.

Jeff.

Jeff Messinger

Internet: Jmessing@novell.com

Disclaimer: The opinions expressed here are solely mine.
 Besides who else would want to claim them.

Date: Thu, 20 May 93 22:51:48 EDT

From: usc!howland.reston.ans.net!usenet.ins.cwru.edu!wariat.org!wariat.org!dreaml!
jga@network.UCSD.EDU

Subject: DJ-580t & FT-530 opinions

To: info-hams@ucsd.edu

JMESSING@novell.com (Jeff Messinger) writes:

| Sorry to take up bandwidth with this request.
| But I am thinking about buying one of these
| two radios. Either the DJ-580t or the
| FT-530. They both seem pretty close in
| features. If there is anyone out there that has
| any thoughts on the advantages of one over the
| other, I would like to hear them.

I had a 580, traded it for a Yaesu 470 which I upgraded to a 530 and love
it. Be sure it has the Intermod Fix from the factory.

73, Jon

--

Jon Anhold N8USK

(jga@dreaml.wariat.org):Internet

(n8usk@n8usk.ampr.org):TCP/IP AMPR

(n8usk@n8jnr.#neoh.oh.usa.noam):AX.25 AMPR

Dreamland Network Systems

Cleveland, Ohio 44116

TCP/IP Mailbox on 144.97

connect/telnet to 'n8usk'

 ** Packet<->Internet Gateway soon to come! **

Date: 20 May 93 18:13:20 EST

From: titan.ksc.nasa.gov!k4dii.ksc.nasa.gov!user@ames.arpa

Subject: Don't get ripped off by the G5RV

To: info-hams@ucsd.edu

In article <1119@auratek.UUCP>, epacyna@auratek.UUCP (Edward Pacyna) wrote:

> And I thought 75 and 20M's was fun.

Ed-

I'm not familiar with the G5RV configuration, so I only know what I've picked up here in the various flames!

I gather that the G5RV is basically a dipole, about 110 feet long, fed with a balanced feedline of some length. Feedline impedance and length vary among the various reports.

If this is true, I can understand why someone might claim they were getting "ripped off", assuming they are paying some large amount of money for such an antenna. One can certainly build their own equivalent for a few dollars, using insulators, wire and 300 ohm twinlead from Radio Shack. I would think that \$25 would cover it easily. How does that compare to the selling price of the commercial version?

If my perception of the antenna is approximately correct, then I see nothing wrong with it except for cost, unless someone thinks they can connect it directly to their 50 ohm transmitter without using a tuner. By using a good quality tuner that can match a balanced line, this configuration should work relatively well, with negligible loss in the balanced line. I suspect that there might be some loss in the tuner if used on 160 meters, and that there would be a multi-lobed pattern on 20 meters and above. (If it didn't match on 160 meters, one could twist the leads from the feedline together, and match it as if it were a long wire.)

So where did I go wrong in my understanding of the G5RV? This certainly has been a popular topic lately. There has been so much emotion and misinformation scattered throughout the various postings, that it is hard to believe the antenna could be as simple as this.

73, Fred, K4DII

fred-mckenzie@ksc.nasa.gov

Date: Fri, 21 May 1993 17:53:43 GMT

From: pa.dec.com!nntpd2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com

Subject: G5RV Performance

To: info-hams@ucsd.edu

jeffj@cbnewsm.cb.att.com (jeffrey.n.jones) writes:

>posted in this most recent discussion. Also it was stated in a earlier
>discussion that you needed a least 56 feet of 51 ohm coax to get the
>G5RV to load up on 10 meters. As I worked another ham who said that
>his G5RV would not load up on 10 meters until he added 6 feet of coax

>this bears this out. I think the whole discussion centered around
>whether the coax would also act as a transformer and work with the 450 ohm
>ladder line to enable the G5RV to load up on 10 meters at a reasonable
>SWR. The general consensus what that it would and not just mask the SWR.
>Any comments? Gee, just when I thought this newsgroup was getting boring
>this discussion crops up! 8-)

No amount of 50 ohm coax is going to provide a match. If varying the length of the 50 ohm coax changes the SWR, then there is probably current flowing on the shield of the coax. To provide a match using a series-section transformer, i.e. an impedance matching transformer made out of transmission line, the characteristic impedance of the transforming section must be different than the characteristic impedance of the line going to the transmitter.

alanb@sr.hp.com (Alan Bloom) writes:

>I don't have the Antenna book in front of me, but wasn't the 75 ohm twin
>lead to be used AFTER the 450 ohm feedline (where the coax usually goes)?

The picture of the G5RV clearly labels the feedline connected to the 102' section of line as 75 ohm twin lead. Using twin lead after the 450 ohm open wire feed line wouldn't make sense as you'd lose the advantage of a coaxial feed line. As I also stated, the Antenna Book is probably in error as several other sources indicate a feedline of 300-450 ohm open wire line.

73,
Todd
N9MWB

Date: 21 May 93 04:30:04 GMT
From: anomaly.sbs.com!kd1nr!news@uunet.uu.net
Subject: Intermod/spurious sigs a common HT problem?
To: info-hams@ucsd.edu

genew@techbook.techbook.com (Gene Wolford) writes:

>
> Is it true that intermod and spurious signals are a common problem
> on multiband handy talkies?
> If so, how do some of the newer rigs perform?
> Such as Yaesu FT-530, ICOM W21AT, Kenwood TH-78A.

I've noticed that Yaesu rigs seem to be the worst ones for wide-open front ends. If I had to rank them for susceptibility to intermod I'd

say:

- 1) Yaesu
- 2) Alinco
- 3) Kenwood

As for spurious signals, well I don't know about the xmit but most of them are pretty close to pure so as not to be a problem.

> It sure would be nice to buy the right rig the first time around!

For HT's, I'd say either the TH-78A or the Alinco DJ-580T, haven't had a chance to check out an FT-530 yet.

```
-----
Tony Pelliccio kd1nr/ae    "Usenet is like a herd of performing elephants
*!*!*!*!*!*!*!*!*!*!*   with diarrhea -- massive, difficult to
system@garlic.sbs.com      redirect, awe-inspiring, entertaining, and a
-----                   source of mind-boggling amounts of excrement
                           when you least expect it."  --spaf (1992)
```

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-----
Date: Thu, 20 May 93 23:16:02 GMT
From: mentor.cc.purdue.edu!noose.ecn.purdue.edu!en.ecn.purdue.edu!n9ljx@purdue.edu
Subject: QSL info need for Pitcairn Island
To: info-hams@ucsd.edu
```

In article <C7CGr4.9BH@squam.banyan.com> dts@banyan.com (Daniel Senie) writes:
>How rare is VR6? Look in the callbook. There are at least 5 or 6 hams. There are

AS I was told when I first started DXing.....They are all rare until YOU work them.

--scott

```
--
Scott Stambaugh - N9LJX      internet: n9ljx@ecn.purdue.edu
Operations Supervisor, ADPC   phone:    317 494 7946
Purdue University
West Lafayette, IN 47907-1061
```

```
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Date: 21 May 93 06:36:52 GMT
From: ogicse!uwm.edu!wupost!darwin.sura.net!news.larc.nasa.gov!
```

larry.larc.nasa.gov!partos@network.UCSD.EDU
Subject: REAL Mods for the HTX-202
To: info-hams@ucsd.edu

In article <fred-mckenzie-200593131022@k4dii.ksc.nasa.gov> fred-
mckenzie@ksc.nasa.gov (Fred McKenzie) writes:

> Yes beleive it or not I found an UNPUBLISHED mod for the HTX-202
x
> Do the following :
> 1) Press the F key (uper left side above PTT)
> 2) While holding this key in press the L key (under PTT)
> 3) Thats all ! Enjoy your radio in the dark !

That's in the instruction manual! Sorry!

Dick KE4AZJ

--

```
|-----|  
| Richard D. Partos           Norfolk, VA |  
| Internet: r.d.partos@larc.nasa.gov |  
|-----| |
```

Date: Fri, 21 May 1993 17:03:38 GMT
From: aio!stevel@ames.arpa
Subject: Remote control features of the Kenwood 742A
To: info-hams@ucsd.edu

I have been looking at buying a Kenwood 742A dual-upgradeable-to-tri-
band radio.

Has anybody had any experiances with the rig (good or bad :-)?
I understand that there are lots of capabilites to remote control the rig
using dtmf tones, but there are no indications of it in the sales
literature. Has anybody played with them? Is the CTCSS board necessary/
desireable to use the remote control function?

How about the 6m add on board?

Thanks for any advice..

73

de N5WHW (Steve)

Date: 21 May 93 01:47:15 GMT
From: csus.edu!netcom.com!netcomsv!hotcity!nick@decwrl.dec.com
Subject: Repeater Questions
To: info-hams@ucsd.edu

- 1) Does one need a repeater license to setup and operate a repeater?
- 2) Are duplexers necessary? Can I just install 2 antennas (1 for receiving and 1 for transmitting)?
- 3) How high up do I need to put it so it will cover 30 miles?

Thanks for the help
-Nick

nick@hotcity.COM

Date: Fri, 21 May 1993 00:07:12 GMT
From: pa.dec.com!nntpd2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com
Subject: SMITH12.ZIP - Hams: Interactive Smith chart calculator
To: info-hams@ucsd.edu

FONTANA@ITNVAX.CINECA.IT (Giorgio FONTANA) writes:

>I have uploaded to WSMR-SIMTEL20.Army.Mil and OAK.Oakland.Edu:

>

>pd1:<msdos.hamradio>

>SMITH12.ZIP Hams: Interactive Smith chart calculator

>

>The program is a Smith chart calculator. It displays on an EGA screen

Does this version have english labels? The version I downloaded recently was all in Italian and my Italian isn't very good.

73,
Todd
N9MWB

End of Info-Hams Digest V93 #617
